AMENDMENTS TO THE CLAIMS

Currently amended

1. A method of performing integrity monitoring comprising the steps of:

selecting at least one ranging measurement associated with a first ranging source belonging to a first ranging source type;

selecting at least one ranging measurement associated with a second ranging source belonging to a second ranging source type; and

performing failure detection using the selected ranging measurements associated with the first and second ranging sources to determine whether either of the first or second ranging sources failed.

Original

2. The method of claim 1, wherein failure detection is performed using weighted ridge regression techniques.

Original

3. The method of claims 1 or 2 comprising the additional step of:

performing failure detection using the selected ranging measurements associated with the first and second ranging sources.

Original

4. The method of claims 1 or 2, wherein the first ranging source is a satellite system and the second ranging source type is a land based wireless communication network.

Original

5. The method of claims 1 or 2, wherein the ranging measurement associated with the first or second ranging source is a PN phase offset measurement.

Original

6. The method of claims 1 or 2, wherein the ranging measurement associated with the first or second ranging source is a pilot phase offset measurement of a pilot signal transmitted by the first or second ranging source.

Original

7. The method of claims 1 or 2, wherein the ranging measurement associated with the first or second ranging source is a signal strength measurement of a signal transmitted by the first or second ranging source.

Original

8. The method of claims 1 or 2, wherein the ranging measurement associated with the first or second ranging source indicates a round trip delay between a receiver and the first or second ranging source.

Original

9. The method of claims 1 or 2, wherein the ranging measurement associated with the first or second ranging source indicates a one way delay between a receiver and the first or second ranging source.

Original

10. The method of claims 1 or 2, wherein the ranging measurement associated with the first or second ranging source indicates an enhanced observed time difference between a receiver and the first or second ranging source.

Currently amended

11. A method of performing integrity monitoring comprising the steps of:

extracting ranging measurements from ranging sources belonging to at least two ranging source types;

selecting ranging measurement from the extracted ranging measurements; and

performing failure detection using the selected ranging measurements <u>to determine whether any of the ranging sources failed</u>.

Original

12. The method of claim 11 comprising the additional step of:

performing failure isolation using the selected ranging measurements.

Original

13. The method of claim 11, wherein failure detection is performed using weighted ridge regression techniques.

Original

14. The method of claims 11, 12 or 13, wherein all the extracted ranging measurements are selected.

Original

15. The method of claim 11, 12 or 13, wherein the step of selecting ranging measurements comprises the steps of:

selecting ranging measurements associated with a first ranging source from the extracted ranging measurements; and

selecting ranging measurements associated with a second ranging source from the extracted ranging measurements if the selected ranging measurements associated with the first ranging source is insufficient to perform failure detection or failure isolation.

Original

16. The method of claim 11, 12 or 13, wherein the step of selecting ranging measurements is based on perceived reliability associated with each of the extracted ranging measurements.